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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/897,898	07/05/2001	Harm M. Deckers	034547-0104	3117

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FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

PAK, YONG D

ART UNIT	PAPER NUMBER
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1652

MAIL DATE	DELIVERY MODE
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10/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/897,898	Applicant(s) DECKERS ET AL.	
	Examiner YONG D. PAK	Art Unit 1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14, 15, 18 and 29-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14, 15, 18 and 29-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This application is a CIP of 09/448,755, now abandoned.

Claims 14-15, 18 and 29-31 are pending and are under consideration.

Response to Arguments

Applicant's arguments, filed June 18, 2008, with respect to the rejections of claims 14-15, 18 and 29-31 are rejected under 35 U.S.C. 103(a), have been fully considered and are persuasive. The rejections have been withdrawn.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 14-15, 18, and 29-31 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over 6-13 of US Patent No. 6,761,914 B2, claims 33-42 of US Patent No. 6,599,513, claims 30-40 of US Patent No.

Art Unit: 1652

6,582,710 B2, claims 1-27 of US Patent No. 6,596,287 B2, claims 1-18 of US Patent No. 6,145,645, and claims 1-16 of US Patent No. 6,183,762 B1 in view of Moloney et al. and Wieles et al.

Claims 6-13 of US Patent No. 6,761,914 B2, claims 33-42 of US Patent No. 6,599,513, claims 30-40 of US Patent No. 6,582,710 B2, claims 1-27 of US Patent No. 6,596,287 B2, claims 1-18 of US Patent No. 6,145,645, and claims 1-16 of US Patent No. 6,183,762 B1 disclose a method of preparing an emulsion formulation of oil bodies.

Moloney et al. (WO 96/21029 - form PTO-1449) discloses a method of producing a fusion protein by introducing into a plant cell, such as a rape seed host cell (page 26 and pages 36-37), a chimeric polynucleotide comprising a polynucleotide that regulates transcription in a cell linked to a polynucleotide encoding a fusion protein comprising a portion of an oleosin obtained from plant and a heterologous protein of interest which is further linked to a polynucleotide capable of terminating transcription in a plant cell, (pages 2-3). The oleosin used by Moloney et al. comprises at least the central domain (page 16, line 27). The method of Moloney et al. comprises growing said transformed plant host cell under conditions permitting expression of said fusion polypeptide, isolating oil bodies comprising said fusion polypeptide and washing said oil bodies comprised of intact oil bodies via centrifugation (pages 2-3 and 10-11). Centrifugation is given as an example of "washing oil bodies", page 12. Also, since Moloney et al. also teaches that the enzyme of the fusion protein retains its enzymatic properties (page 21) indicating the heterologous protein is intact, Examiner takes the position that the "washed oil body preparation" comprising the fusion protein of Moloney et al. is

Art Unit: 1652

“substantially intact”. Moloney et al. provides several advantages in producing a heterologous protein in plant cells by expressing a fusion protein comprising the protein of interest and an oleosin, such as efficient large scale production of the protein (page 2, lines 1-9).

Polynucleotides encoding many thioredoxin and thioredoxin reductases are known in the art see NiceZyme: EC 1.8.1.9 – cited previously on form PTO-892). Wieles et al. (cited previously on form PTO-892) discloses a polynucleotide encoding a thioredoxin and thioredoxin reductase and production of thioredoxin and thioredoxin reductase expressed in bacteria (abstract and pages 921-922). Wieles et al. also discloses that thioredoxin and thioredoxin reductase are involved in redox regulation and catalytic mechanism (abstract and page 921).

Therefore, combining the teachings the above patents and references, it would have been obvious to one having ordinary skill in the art to use the method of the referenced patents for formulating a fusion protein comprising thioredoxin or thioredoxin reductase. One of ordinary skill in the art would have been motivated to use the method of the referenced patents in order to produce and formulate thioredoxin or thioredoxin reductase in order to inexpensively produce thioredoxin and thioredoxin reductase in plant cells, wherein the fusion protein can be re-used several times in catalysis. One of ordinary skill in the art would have had a reasonable expectation of success of making a fusion protein and isolating the fusion protein since Moloney et al. disclose a method of making a polynucleotide encoding a fusion proteins comprising oleosins.

Conclusion

None of the claims are allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Pak whose telephone number is 571-272-0935. The examiner can normally be reached 6:30 A.M. to 5:00 P.M. Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nashaat Nashed can be reached on 571-272-0934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Yong D Pak/
Primary Examiner, Art Unit 1652